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Horticulture: results of the year 1894

William Carter Stubbs

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SECOND SERIES,

No. 36.

BULLETIN

OF THE

LOUISIANA STATE EXPERIMENT STATIONS.

WM. C. STUBBS, Ph. D., Director.

HORTICULTURE.

RESULTS OF THE YEAR 1894.

—BY—

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F. H. BURNETTE, HORTICULTURIST, BATON ROUGE,
GENE WATSON, HORTICULTURIST, CALHOUN.

ISSUED BY THE BUREAU OF AGRICULTURE.

A. V. CARTER, Commissioner.

BATON ROUGE, LA.

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LOUISIANA STATE UNIVERSITY AND A. & M. COLLEGE

BUREAU OF AGRICULTURE.

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LOUISIANA STATE UNIVERSITY AND A. AND M. COLLEGE, }
OFFICE OF EXPERIMENT STATIONS,
Baton Rouge, La. }

Col. A. V. Carter, Commissioner of Agriculture, Baton Rouge, La. :

The interest in "Truck Growing" and "Fruit Raising" is daily increasing in this State. Gardens upon an extensive scale exist around New Orleans, on the Illinois Central and Mississippi Valley railroads. Considerable developments have been made along this line in other portions of the State, notably, in Northwest Louisiana. "Fruit growing" for market and home use, is attracting considerable attention both from present residents and those seeking homes in our State. The manuscript herein enclosed, covers results obtained at all these Stations in Horticulture during the past year. Full accounts are given of the influence of recent cold winter upon "the varieties of oranges upon different kinds of stocks." It is hoped from the experience gained that the future orange groves will consist of stocks and varieties capable of resisting any cold that may periodically visit us.

Please publish the within as Bulletin No. 36, and oblige.

Respectfully submitted.

WM. C. STUBBS, Director.

VEGETABLES.

The following are the results at the three Stations. The spring vegetables at all of the Stations were very successful, but the very dry fall prevented everywhere a realization of good gardens :

ASPARAGUS.

Grown Only at Baton Rouge.

The four varieties will be found below, with their record for the year :

No.	VARIETY.	REMARKS.
1	Barr's Mammoth ..	Was ready for use first, and has its bed well established.
2	Conover's Colossal.	Ready for use one week later than Barr's; has better shoots ; growth slower.
3	Moore's Cross-bred.	Ready for use immediately after the first cuttings of Barr's ; seems to be as well established ; shoots are larger.
4	Palmetto	Ready for use with Barr's and is now showing more improvement than any other variety.

BUSH BEANS.

The following, including many new varieties, were grown. In the column of yield, results are given on a scale of 10.

NAMES	Audubon Park.			Baton Rouge.			Calhoun.		
	When Ripe.	Quality.	Yield.	When Ripe	Quality.	Yield.	When Ripe.	Quality.	Yield.
Algerian Black Wax				May 2					
Boston Favorite				" 2		6	May 18	good	8
Best of All	May 1	good	9	" 25		7			
Bismarck Black Wax				" 17		8	May 16	good	10
Black Eyed Wax	May 1	good	6	" 17		5	" 16	fair	5
Challenge Black Wax				" 17		7	" 16	good	4
Date Wax				" 2		4	" 16	good	6
Dwarf Lyonnaise				" 31		3	" 16	good	9
Detroit				" 17		6	" 16	good	5
Dwarf Horticultural				" 17		8	May 15	good	8
Extra Early Valentine	April 26	good	8	" 29		6	" 15	best	10
Extra Early Valentine (Bureau of Agriculture)				June 1		5			
Early China	April 20	good	7	May 17		10	May 14	good	4
Extra Early Maine				" 25		6	" 15	poor	5
Early Mohawk	April 26	good	7	" 17		9	" 12	excellent	9
Early Golden Wax	April 26	good	8	" 17		2			
Emperor William				" 17		4	May 12	good	7
Early Long Six Weeks				" 25		3			
Early Round Yellow Six Weeks	April 30	good	7	" 2		7	May 15	poor	2
Flageolet Red Wax				" 2		4	" 15	good	9
Golden Eyed Wax				May 2		7	" 15	fair	3
Green Seed Flageolet				" 2		6	" 15	fair	9

BUSH BEANS.—CONTINUED.

NAMES.	Audubon Park.			Baton Rouge.			Calhoun.		
	When ripe.	Quality.	Yield.	When Ripe.	Quality.	Yield.	When Ripe.	Quality.	Yield.
Golden Refugee.....	May 10	good	8	May 29	.....	8	May 15	very good	9
Improved Black Wax.....				June 1	.....	2			
Improved Golden Wax.....				May 17	.....	7			
Improved Prolific Black Wax.....				" 17	.....	7	May 16	fine	9
Improved Extra Early Red Valentine (Bureau of Agriculture).....	May 1	good	8	" 17	.....	4			
Improved Red Valentine.....	April 2 ^d	good	8	" 2	.....	2			
Long Yellow Six Weeks.....				" 17	.....	3			
Low's Champion.....				" 21	.....	7	May 18	poor	9
Marvel of Peru.....				" 17	.....	9			
Mexican Tree.....				June 7	.....	6	May 30	poor	10
New Struggless Green Pod.....				May 17	.....	7			
Ne Plus Ultra.....				" 17	.....	7	May 15	good	7
Nettle Leaved Flageolet.....				" 17	.....	3			
Pride of Newton.....	May 1	fair	6	" 17	.....	7	May 15	good	8
Red Kidney.....	" 10	fair	8	June 1	.....	4			
Refugee or 1000 to 1.....	April 26	good	9	May 31	.....	7	May 17	fair	7
Specked Cut Short or Corn Hill.....				" 17	.....	7			
Thorburn's Extra Early Market.....				June 7	.....	2			
Thorburn's Extra Early Refugee.....	April 26	good	8	May 2	.....	10			
Triumph of the Frames.....				June 1	.....	2	May 13	ver. good	10
White Kidney.....	May 1	fair	7	May 29	.....	7			
Wardell's Kidney Wax.....	April 16	fair	6	" 17	.....	7	May 15	best	3
White Valentine.....				" 17	.....	7	" 15	good	9
White Marrow.....				June 1	.....	3	" 18	good	9
White Kidney Wax.....				May 2	.....	2	" 15	good	9
White Wax.....				June 7	.....	4	" 18	poor	9
Yosemite Mammoth Wax.....				" 1	.....	2	May 17	good	10

LIMA AND POLE BEANS.

The following are the varieties at the three Stations :

NAMES.	AUDUBON PARK.			PATON ROUGE.			CALHOUN.		
	When ripe.	Quality.	Yield on scale of 10.	When ripe.	Quality.	Yield on scale of 10.	When ripe.	Quality.	Yield on scale of 10.
Black Algerian Wax.....				May 17		3			
Challenge Lima.....				June 30		2	June 20	fine	9
Dutch Case Knife.....				May 25		7			
Early Golden Cluster.....	May 1	good	8	May 21		2	May 20	very good	9
Early Jersey Lima.....				June 30		2			
Early Black Lima.....				June 30		4	June 15	fine	10
Flageolet Wax Pole.....				May 25		7			
French Asparagus.....				June 1		6	May 21	fine	10
Golden Andalusia.....				May 26		3			
Kentucky Wonder.....	May 20	good	5	June 1		6	May 19	good	9
London Horticultural (or Speckled Cranberry).....				May 25		4	May 20	poor	9
Large White Lima.....	June 10	good	6	June 30		2	June 20	fine	8
Mt. d'Or.....				May 25		7			
Small White Lima.....	June 10	good	7	June 23		3	June 20	fine	9
Southern Creasback.....				June 1		5			
White Algerian Wax.....				May 26		4			
Burpee's Bush Lima.....	May 20	good	2	June 30		2	June 10	good	3
Henderson's Bush Lima.....	May 20	good	3	June 14		2			
Thorburn's Dwarf Lima.....	May 20	good	4	June 30		2	June 5	good	9
Scarlet Runner.....							May 15	worthless	5
French Yard Long.....							June 6	not good	4
Dwarf Sieva.....							June 15	good	9
Jackson Wonder.....	June 10	good	3				June 20	good	10
Carolina or Sewee.....	June 10	good	8				June 20	good	9
Ford'sman's Podded.....							June 20	good	5
Southern Sewee or Willow Leaf.....	June 10	good	8						
Southern Prolific.....	June 10	good	9						

King of the Garden and Dreer's Lima were also grown at Calhoun and found identical with Large White Lima and Challenge. Jackson's Wonder seems to be a Dwarf Lima.

RECOMMENDATIONS.

For Audubon Park.—Early Valentine, Early Mohawk, Early Yellow Six Weeks, Best of All, Golden Refugee and Wardell's Dwarf Kidney among snap beans, and Henderson Bush Lima, Carolina or Sewee and Southern Willow leaved Sewee among Lima, and Southern Prolific, Crease Back, Golden Wax Flageolet, and Early Golden Cluster Wax Pole.

For Baton Rouge.—Bush—Early Mohawk, Early China and Pride of Newton. Pole—Dutch Case Knife, Golden Cluster and Large White Lima.

For Calhoun.—Bismarck Black Wax, Early Valentine, Early Mohawk, Golden Refugee, Early Refugee, Yosemite Mammoth Wax for bush beans. For Poll and Lima Beans—Early Black Lima, French Asparagus, Jackson Wonder, Carolina or Sewee Lima, and Small Dwarf Lima.

ENGLISH DWARF BEANS.

Several varieties of this kind of bean were grown at Calhoun, but without success, the blight destroying blossoms and fruit.

BEETS.

Following are results at the three Stations :

NAMES.	Audubon Park.			Baton Rouge.			Calhoun.		
	When ripe	Quality.	Yield.	When ripe	Quality	Yield.	When ripe	Quality.	Yield.
Bastian's Turnip.....	Apr 1	Fine.	10	Apr 15	...	5	May 15	Good.	8
Dewing's Extra Early Turnip	"	"	9	" 14	...	5	" 15	"	8
Early Bassano.....	"	Fair.	9½	" 15	...	7	" 12	Fine.	10
Extra Early Turin	"	"	"	" 15	...	10	" 15	Good.	9
Eclipse	Apr 10	Fine.	10	" 10	...	10	.....	.....	.....
Early Yellow Turnip.....	"	"	"	" 20	...	3	.....	.....	.....
Early Blood Turnip.....	Apr 10	Good	8	" 15	...	8	.....	.....	.....
Extra Early Dark Egyptian..	"	"	8	" 15	...	4	.....	.....	.....
Edmund's Ey. Blood Turnip..	"	Fine.	9½	" 14	...	8	May 15	Good.	8
Half Long Blood.....	"	"	"	" 15	...	9	.....	.....	.....
Long Smooth Blood	"	"	"	" 21	...	3	.....	.....	.....
Ne Plus Ultra	"	"	"	" 20	...	4	.....	.....	.....
Victoria.....	"	"	"	" 20	...	3	.....	.....	.....
Black Queen	Apr 10	Fair.	6	.....	.....	.....	May 15	Good.	9
Excelsior.....	"	"	"	.....	.....	.....	" 12	"	8
Lentz Extra Early	Apr 10	Good.	9	.....	.....	.....	.....	.....	.....
Leonette Blood	"	"	7	.....	.....	.....	.....	.....	.....

For general use the following are recommended: Early Basano, Eclipse, Early Blood and Bastian's Turnip.

BOCAGE

One variety of this plant, whose leaves, when young, are eaten for salad, was grown at Calhoun with great success.

BROCCOLI,

Three varieties, Chappell's Cream, Early White, and Early Purple, were grown at Calhoun, but the dry hot weather of late summer prevented perfection of heads.

BRUSSELS SPROUTS.

Improved Half Dwarf, Improved Dwarf, and Beet French or Roseberry were varieties used at Calhoun. The Improved Half Dwarf was a partial success, the rest failures, due to prolonged drought of summer and fall.

CABBAGES.

At Audubon Park and Baton Rouge both spring and fall cabbages were good, while at Calhoun the very dry summer and fall prevented full development of heads.

Eight varieties were grown at Audubon Park, sixteen varieties at Baton Rouge and thirteen varieties at Calhoun.

In the neighborhood of New Orleans cabbage seed are sown from August to November and plants transferred to field from September to January. Large Flat Brunswick, Improved Early Summer, Late Flat Dutch and Stern's Early Flat Dutch are varieties usually sown for market at Baton Rouge. Early Etampes, Early Summer, Nonsuch, Stein's Extra Early Flat Dutch and Superior Late Flat Dutch are recommended, maturing in the order named.

At Calhoun—Early Etampes, Early Dwarf Savoy and Flat Dutch are suitable for family use.

CABBAGE WORM (*Pieris rapæ*),

Was troublesome all over the State the past year. The following remedy is effectual: One part Paris green to one hundred parts of lime very thoroughly mixed and dusted carefully on the

young plants will destroy every leaf eating worm that attacks them. By early use of this poison on young plants the worms may be destroyed before the heads are formed and thus all apprehension from use of "poison on cabbage heads" be removed. But if properly used, even on the heads, there is no danger, since the small amount used per head, even if not removed by by rains, would be insufficient for fatal results. The above mixture on small plants, followed by Pyrethrum powder on the full head, will insure destruction of worms and with no particle of danger to the consumer. The mixture of Paris green and lime given above has been found efficacious in protecting seed beds against cut worms.

CAULIFLOWER.

Little or no effort is made by the average farmer or planter to grow this, the most delicate and delicious of the cabbage family. In South Louisiana, by sowing the seed in the latter part of September good marketable heads can be obtained by December 1st. Considering the high prices paid for cauliflowers it is well worth the efforts of the market gardener to grow them. At Audubon Park no effort was made to grow them. At Baton Rouge four varieties were grown with great success (see table below). At Calhoun ten varieties were planted but the very dry weather prevented a development of head.

The following are the results at Baton Rouge: Early Dwarf matured December 13, giving small, very compact heads averaging 3½ pounds each. Early cauliflower, matured December 1st with medium sized rather open heads weighing 4½ pounds. Half Early Paris ripe December 12, with large, good heads weighing 8½ pounds. Le Normand's Short Stem, later in maturing, was harvested December 20, with small, rather compact heads weighing 3½ pounds.

CARDOON (*Cynaria Cardunculus*).

A very vigorous member of the artichoke family, whose thick and fleshy leaf stalks are used for salads, soups, etc., after being blanched, was grown very successfully at Calhoun.

CORN SALAD, CRESS, CHICORY AND CHERVIL

were also grown with more or less success at Calhoun.

SWEET CORNS.

Several sowings of sweet corns may be made during the season, and by such, excellent roasting ears may be obtained for table purposes from early in May till October. The following are the results at the two Stations :

NAME OF VARIETY.	Audubon Park.			Baton Rouge.		
	Date of ripening.	Size of ear.	Yield on scale of 10.	Date of ripening.	Size of ear.	Yield on scale of 10
Adams	May 20	Large	9	June 20	Fair	8
Asylum	" 22	Large	9 $\frac{1}{2}$	" 19	Large	9 $\frac{1}{2}$
Crosby's Early	" 20	Fair	8	" 13	Small	5
Early Minnesota	" 20	Fair	6	" 13	Medium	7
Early Sugar	" 20	Medium	6	" 20	Small	5
Early Golden Yellow	"	"	"	" 14	Medium	7
Extra Early Cory	May 10	Small	6	" 12	Small	6
Early Naragansett	"	"	"	" 13	Small	7
Excelsior Sweet	May 22	Large	7 $\frac{1}{2}$	" 13	Medium	8 $\frac{1}{2}$
Early Eight-rowed	" 20	Large	9	" 19	Small	6
Extra Early Adams	" 8	Small	6	" 11	Small	5
Egyptian	" 28	Fair	8	" 25	Small	6
Fordhook	" 8	Fair	7	"	"	"
Hickox	" 25	Medium	9	June 25	Large	9
Moore's Concord	" 22	Medium	8 $\frac{1}{2}$	" 20	Small	6
Mammoth Sugar	" 28	Large	9	" 19	Large	9
Marblehead	"	"	"	" 14	Small	5
Ne Plus Ultra	May 30	Fair	7	"	"	"
Perry's Hybrid	" 20	Medium	7	June 20	Medium	8
Potter's Excelsior	" 22	Large	9	" 19	Large	9
Pee & Kay	" 20	Fair	8 $\frac{1}{2}$	" 15	Large	9
Portland	"	"	"	" 15	Long	7
Ruby Sugar	"	"	"	" 25	Large	8
Shaker's Early	"	"	"	" 14	Large	9
Stowell Evergreen	June 1	Large	9 $\frac{1}{2}$	" 25	Medium	6
Stabler's Pedigree	"	"	"	" 20	Medium	7
Triumph	May 25	Large	9	" 20	Large	9 $\frac{1}{2}$
Table Pedigree	"	"	"	" 15	Small	5
Thorburn Manhattan	May 8	Very small	1	"	"	"
Zig Zag	" 20	Fair	8	June 14	Large	10
Amber Cream	" 25	Small	7	"	"	"
Early Marblehead	" 16	Medium	5	"	"	"
Melrose	" 20	Medium	7	"	"	"
Extra Early Dwarf	" 20	Fair	8	"	"	"
Roslyn Hybrid	" 28	Fair	9	"	"	"
Black Mexican	" 28	Fair	8 $\frac{1}{2}$	"	"	"
Country Gentleman	June 5	Large	9	"	"	"

For garden purposes, Extra Early Adams, Asylum, Hickox, Mammoth Sugar, Potter's Excelsior and Triumph are to be generally recommended. Several of the others are not far behind in merit.

CUCUMBERS.

Cucumbers are grown in every private garden and also largely by market gardeners. The latter sometimes grow them in large quantities under glass during winter and early spring, at which time they receive very high prices for their fruit. A special house was constructed at Baton Rouge last fall for the purpose of experimenting in raising cucumbers under glass for the market during winter, but many difficulties were encountered which prevented the consummation of our purpose. By another winter these difficulties will, it is hoped, be overcome and special efforts will be made to give this process a fair trial with the hope that if successful some of our enterprising market gardeners may be induced to inaugurate such an industry. Our experiments, therefore, at all three stations are mainly along the line of testing varieties suitable for outdoor culture for our home and market gardens.

Nine varieties were grown at Audubon Park, 18 at Baton Rouge and 18 at Calhoun. The following are results :

RESULTS OF EXPERIMENTS WITH CUCUMBERS.

NAME OF VARIETY.	Audubon Park.			Baton Rouge.			Calhoun.		
	When Ripe.	Size.	Yield on scale of 10.	When Ripe.	Size.	Yield on scale of 10.	When Ripe.	Size.	Yield on scale of 10.
Boston Pickling	May 6	short	8	June 22	short	4	May 20	medium	9
Burpee White Wonder				" 11	small	2			
Extra Early Green Prolific				" 1	fair	2			
Early Frame	May 6	small	8	" 5	small	5			
Early Cluster	" 6	small	9	" 11	small	5	May 20	small	8
Early Russian	" 1	short	8	" 11	small	3	" 20	small	7
Extra Long White Spine				" 11	long	3	May 25	long	4
Henderson's Cool and Crisp				" 11	long	4			
Improved Early White Spine	May 1	medium	9	" 5	large	6	May 25	medium	9
Livingston's Evergreen				" 5	medium	10			
Long Green				" 5	long	5	May 22	long	9
Long Green Turkey	May 10	long	8	" 5	long	4			
New Everbearing				" 5	long	8	May 17	small	8
Nichols Medium Green				" 1	small	6	" 20	medium	9
New Orleans Market	May 10	long	8	" 11	medium	8			
Short Green				" 5	small	3	May 22	poor	3
Green Prolific				" 14	small	5			
Peerless	May 10	large	9½				May 22	large	9
Giant Pera							" 25	large	9
Commercial Pickle	May 10	fair	7				" 17	small	9
Talbys Hybrid							" 21	large	10
Early White Spine							" 23	medium	9
*Large Netted Russian									
†Japanese Climbing									
White Pearl	May 10	medium	8						

*Failure. †Unproductive.

RECOMMENDATIONS.

At Audubon Park, nearly all of the varieties tried were successful. The Peerless, New Orleans Market, Improved Early White Spine, Early Cluster and Long Green Turkey are specially desirable on account of quality and prolificness.

The following are recommended at Baton Rouge and Calhoun: New Orleans Market, Long Green Turkey and Improved Early White Spine.

Where pickling stock is desired the Boston and Commercial pickles will be found valuable.

EGG PLANTS.

To grow this vegetable successfully there is required a fertile soil, good seed and skill in cultivation. The potato beetle and other insects have been found destructive to its foliage. Careful attention to the immediate destruction of insect enemies and to protection from cold or cool spells must be given to insure full crops of this vegetable. Early crops of this plant always insure high prices, and hence our market gardeners spend considerable money in hot beds, cold frames, etc., to obtain early fruit.

At Baton Rouge alone was the crop successful last year. Four varieties were grown. "Black Pekin," with a small dark fruit weighing on an average 1.3 pounds; "Early Dwarf Oval," bearing the earliest but smallest fruit, averaging in weight only 10 ounces; "Long Round Purple," with a strong resemblance to the New Orleans Market, and "New Orleans Market," the standard variety with gardeners around New Orleans. The first of the last two averaged in weight about 1.12 pounds. The "New Orleans Market" is still without a peer for general use.

ENDIVE.

Six varieties of this salad were grown at Calhoun with eminent satisfaction, but preference was given to the "Curled" varieties as superior both in quality and quantity.

KALE.

The following varieties made satisfactory growth at Calhoun, viz.: Dwarf German, Curled Scotch, Curled Mossback,

Tall German and Imperial Garnishing. The White Siberian and Sea Kale failed entirely.

KOHLRABI.

Three varieties of this plant were grown at Baton Rouge, the first of which were sold readily at fair prices.

The Early White Vienna, nearly round, made an average weight of about 2½ pounds, and is the most popular variety. The Early Purple Vienna, of round shape and purple color, averaged 2 pounds in weight. The Long White or Green, a larger and coarser variety, averaged 2 9-16 pounds.

LETTUCE.

The ease with which it is grown, its immunity from disease and insect attacks, makes this plant manageable in the hands of every one. Therefore nearly every variety is a success. Six varieties were grown at Audubon Park, twenty-five at Baton Rouge and ten at Calhoun. There were only a failure of a few varieties at Baton Rouge. Elsewhere all varieties are reported as successful. Out of the numerous varieties, however, there are good, better and best, and the latter are only to be recommended, which are, from our tests, as follows: New Orleans Passion and the varieties of Cos, for spring, and the Brown Dutch Cabbage and Boston Market for fall use.

The Cos varieties recommended for spring use are very superior in flavor, and to reach perfection the heads should be tied up to insure bleaching. They are of conical form, 5 to 6 inches in diameter, 8 to 9 inches in height. The Paris White Cos has been cultivated in England for nearly a century, and is still the favorite in the London markets.

LEEKs.

Two varieties were grown at Calhoun, viz.: Large London Flag and Large Rouen. Both Produced satisfactory results. The former is larger and of better quality.

MUSKMELONS.

At Audubon Park about twelve varieties of muskmelons were grown, every one of them failing completely on account of the blight except New Orleans Market, which made a large yield of excellent melons. No spraying was practiced. At Baton Rouge 35 and at Calhoun 20 varieties were successfully grown without much injury from the blight. If begun in time the application of Bordeaux mixture will destroy the blight not only on muskmelons but cucumbers, squash, pumpkins, etc. It must be applied early and at short intervals until the disease disappears. The following is a condensed record :

MUSKMELONS.—CONDENSED RECORD.

NAME OF VARIETY.	Baton Rouge.		Calhoun.		Remarks.
	When ripe.	Average weight, lbs.	When ripe.	Weight of largest, lbs.	
Banana.....	July 6	4.3	July 23	5.5	Two to three inches long, ribbed, undesirable.
Baton Rouge Market.....	July 24	4.5	.....	.....	Similar to New Orleans Market.
Baltimore Market.....	June 25	3.2	July 12	4.5	Fair quality, oblong, productive.
Bird's Cantaloupe.....	July 5	3.6	.....	.....	Fair size and quality.
Burpee's Melon.....	" 4	1.9	.....	.....	Small, almost a failure.
Banquet.....	" 2	1.6	.....	.....	Netted, rich yellow flesh, fine flavor.
Chicago Nutmeg.....	" 5	3.7	July 17	5.5	Size medium, good, early and prolific.
Chicago Market.....	" 4	4.6	.....	.....	Fair size and quality, round, green flesh.
Champion Market.....	" 13	2.7	.....	.....	Netted, oblong, sweet, green flesh.
Delmonico.....	" 3	3.8	July 14	9.0	Ribbed, round, yellow flesh, large fairly prolific.
Emerald Gem.....	" 5	1.4	.....	.....	Small, dark green, fine flavor, a gem.
Fine Nutmeg.....	June 30	2.4	.....	.....	Small, not desirable.
Green Montreal.....	July 5	5	July 18	8	Large, round, green flesh, good and productive.
Golden Netted Gem.....	" 2	1.2	" 22	6.5	Size medium, green flesh, good, not productive.
Hackensack.....	" 14	4.5	" 14	8.25	Medium size, good, early and productive.
Hybrid Bay View.....	June 25	4.7	" 17	8	Large, oblong, green flesh, fair and prolific.
Jenny Lind.....	July 5	1.6	" 12	3.5	Small, green flesh, sweet and prolific.
Long Island Beauty.....	" 2	2.5	.....	.....	Similar to Hackensack.
Large White Prussian.....	June 25	9.6	.....	.....	Large, light flesh, fair quality.
Long Yellow Cantaloupe.....	July 2	4.5	July 15	11.5	Long yellow, not desirable.
Netted Nutmeg.....	" 3	2.1	.....	.....	Small, roughly netted, fine flavor.
Netted Citron.....	" 9	1.9	.....	.....	Similar to above, not as good.
Netted Gem.....	" 12	1.2	.....	.....	Similar to Golden Netted, green.
Netted Beauty.....	June 25	3.3	.....	.....	A fine, small, green, netted melon.
New Orleans Market.....	" 20	4.6	.....	.....	Good size, good flavor, good shipper.

MUSKMELONS —CONDENSED RECORD.—CONTINUED.

NAME OF VARIETY.	Baton Rouge.		Calhoun.		Remarks.
	When ripe.	Average weight, lbs.	When ripe.	Weight of largest, lbs.	
Osage.....	July 6	3.8	.....	.....	Round, yellow flesh, good flavor.
Orange Christiana.....	June 30	2.4	July 18	8.5	Round, early, orange flesh sweet.
Persian or Casaba.....	July 3	5.3	.....	.....	Large round, does not stand handling.
Pine Apple.....	" 9	4.5	July 15	7.15	Good size, mellow, good flavor, prolific.
Shumway's Giant.....	" 3	4.9	" 18	12.	Large, yellow flesh, not desirable.
Skillman's Netted.....	" 2	2.5	" 19	3.5	Round, netted, flesh green.
Surprise.....	" 12	5.4	" 20	5.	Large, oblong, yellow flesh, prolific, excellent.
Ward's Nectar.....	" 9	1.5	" 15	3.	Netted, small, green flesh fine and productive.
White Japan.....	" 6	2.5	" 18	4.75	Medium, light green, early and prolific.
New Winter Pineapple.....	.....	.....	" 17	8.5	Pineapple shape, prolific, good keeper.
New Superior.....	.....	.....	" 18	4.75	Medium, poor quality, prolific.

For home purposes many of the above can be grown, but for market (especially in South Louisiana) the New Orleans Market stands without an equal. The Emerald Gem, Surprise, Hackensack and others are excellent varieties and may be grown for home use.

MUSTARD.

The following varieties of white mustards were grown at Calhoun for salad purposes. White American, White London, Giant Southern Curled, Chinese Large-leaved, Silver Curled, Tuberous Rooted (a variety with turnip-like roots and small tops). They all made satisfactory growth, but the "Silver Curled" is pronounced a "superb" variety.

OKRA

was grown at all of the Stations. The following varieties in the order of productiveness were grown :

"Tall Growing," an old established variety ; very prolific.

Long Green, similar to Tall Growing.

Prolific, similar to Tall Growing.

Dwarf Green, of dwarf growth, pods green.

Dwarf White, of dwarf growth, pods white.

White Velvet, soft pods, devoid of spines, prolific.

New Dwarf Density, long pointed smooth pods, early and fine.

At Audubon Park, a full later supply was obtained from each of above varieties, May 20, at Baton Rouge, June 6 to 10, and at Calhoun, June 15 to 20.

ONIONS.

At Audubon Park nine, at Baton Rouge four (Red and White Bermuda, Creole and White Queen), and at Calhoun twenty varieties were grown.

At Audubon Park the Creole and the Bermudas were preferred, while at Baton Rouge all of above did well with decided preference for the Creole.

The following table gives results at Calhoun :

ONIONS.

VARIETY.	Shape.	Color.	Weight of Largest Onion.	Total yield Per acre in bushels.	Per cent. Merchantable in bushels.	Per cent. culls in bushels.	REMARKS.
Early White Queen	Flat	White	4 oz	73.6	47.1	26.5	Early—a good onion.
Giant Tripoli	Flat	White	5½ oz	86.79	73.53	13.26	Early—not as smooth and handsome as the above.
Bermuda	Flat	White	8 oz	86.79	60.27	26.52	Early—very fine and good.
Bermuda	Flat	Red	8 oz	97.	72.5	24.5	Medium season—very good.
Bermuda	Flat	Red	8 oz	134.5	116.	18.5	Medium—very good.
Mammoth Garganus	Flat	White	5½ oz	97.57	80.37	17.2	Early—common.
Mammoth Garganus	Flat	Red	8 oz	69.1	69.1	.....	Medium—fine.
Giant Rocco	Round	Yellow	12 oz	159.8	141.3	18.5	Medium—very fine.
Danvers	Round	Yellow	12 oz	208.3	107.3	1.	Medium late—very fine and satisfactory.
Globe Danvers	Globular	Yellow	5½ oz	138.6	121	17.	Medium late: not so fine and satisfactory as the above
White Maginola	Flat	Yellow	12 oz	122.5	108.	14.5	Early and satisfactory.
Globe Spanish	Globular	Yellow	12 oz	109.	93.	16.	Medium early—fine.
Portugal	Round	White	5½ oz	117.	93.	24.	Late—satisfactory.
Red Globe	Round	Red	5½ oz	178.5	148.5	30.5	Medium—very good.
Large White Globe	Globular	White	5½ oz	145.	101.5	43.5	Late common.
Wethersfield	Round	Red	12 oz	159.5	130.	29.	Medium late—very satisfactory.
Early Red	Flat	Red	12 oz	167.	138.	29.	Early—very good.
Yellow Dutch	Flat	Yellow	4 oz	113.	84.	29.	Medium—common.
Madeira	Flat	Pink	12 oz	69.5	26.	43.5	Late—very fine.
Yellow Globe	Round	Yellow	4 oz	55.	22.	33.	Late—unsatisfactory.
Giant Rocco	Round	Red	12 oz	101.5	72.5	29.	Medium—very satisfactory.

PARSLEY.

The varieties of Plain leaf, Double Curled and Improved Garnishing were grown at Audubon Park and Baton Rouge. They are old and popular varieties with preference for the last, for decorative purposes. At Calhoun the following additional varieties were grown: "Extra Curled" (very successful), "Moss Curled," poor growth; Fern leaved, poor growth; "Beauty of the Pasture," poor growth; "Hamburg or Rooted," good growth. The roots of the last are eaten and resembles parsnips.

PEAS.

Extensive experiments were made in varieties by all three stations. The varieties used may be divided into the dwarf and bush. Here only the peas are eaten. But there are varieties now on sale where the pods with the enclosed peas are eaten. The dwarf varieties as a rule are only for earliness, while the old standard varieties of Marrowfat, Champion of England, etc, though late, give large yields.

At Audubon Park, all varieties were planted March 2nd and they ripened in the following order:

April 17th—Thorburn (7)*. Tom Thumb (4), Station (6), Alaska (6), Blue Beauty (6), and American Wonder (2).

April 25th—Laxton's Alpha (7), May 4th, Small French (8), McLean's Advance (7), and Carter's Telephone (8).

May 8th—Black eyed Marrowfat (9), and Champion of England (9).

*This means yield on scale of 10.

The following is the report from Baton Rouge :

Number.	VARIETIES.	Earliness.	REMARKS.
1	Black-eyed Marrowfat.....	May 9	A good market sort.
2	Barnes Small Red Pea.....	June 12	Not desirable.
3	Champion of England.....	" 12	Old standard late pea.
4	Dwarf Blue Imperial.....	May 5	A good early pea.
5	Early Washington.....	April 27	Very early—fair yield.
6	Early Tom Thumb.....	" 20	Earliest—very small.
7	Extra Early Philadelphia.....	" 27	Early—yield fair.
8	Extra Early or First and Best.....	May 9	Not satisfactory this year.
9	Echo (Burpee).....	June 12	New—has merit.
10	Laxton's Prolific Long Pod.....	May 3	Prolific—good for market.
11	Melting Sugar (U. S. Dep't of Agr).....	June 12	Late—yielded well.
12	Royal Dwarf Marrow.....	May 5	A dwarf—marrowfat.
13	Strasburg (U. S. Dep't of Agr).....	June 12	Late—moderate yield.
14	Sterling (U. S. Dep't of Agr).....	" 12	Late—desirable.
15	Sapphire (Northrop, Braslan & Goodwin Co)	" 12	Late—fair quality.

Early Tom Thumb, Dwarf Blue Imperial, Black-eyed Marrowfat and Champion of England, make a good selection in this locality.

At Calhoun, ten of the earlier varieties were planted February 27 and did well, having subsequently favorable seasons. The second planting was made of the later varieties on March 19 and the spring drouth was so severe as to greatly injure the results.

The following early varieties were ready for table, as follows :

April 18—Small Early French (very good).

April 20—Extra Early O'Rourke (not desirable) ; First and Best (one of best earlies), and Philadelphia (very desirable).

April 21—Exonian (fair), Extra Early Alpha (good), Extra Early Market (failure) Blue Beauty (very satisfactory), Alaska (failure), and Rural New Yorker (unproductive).

Of the later varieties, planted March 19, the following yielded fair results :

Abundance, Filbasket, McLean Advance, Giant Sugar, Melting Sugar and French Dwarf Sugar.

It is difficult to recommend any special varieties of early peas ; so many are on the market that it is impossible to try them all under the same conditions. Again, some persons prefer the wrinkled varieties to the smooth. Therefore, in selection, due

regard must be paid to individual tastes and preferences. A glance at the above will suggest varieties suitable for all; but no private garden is complete without including the Marrowfats or Champion of England.

PEPPERS

were grown only at the Stations at Baton Rouge and Calhoun—twenty two varieties at the former and twenty at the latter.

Peppers are divided into three classes: 1st. Those used green as sweet peppers. 2d. Those used as condiments, and 3d, those grown for ornament, but may also serve as condiments. There is a demand locally for only those of the first class.

At Baton Rouge all varieties grew well and yielded fruit abundantly until killed by frost.

The Sweet Spanish, Sweet Mountain and Monstrous are pronounced the most desirable of the first class.

PUMPKINS.

Thirteen varieties were grown at Baton Rouge, but only the 'Improved Cashaw' met with popular favor. The others grew well, but their fruit could not be sold. Pumpkin pie is not as popular in this section as elsewhere in this country, and few farmers raise them for stock food.

RADISHES.

A large number of varieties were grown at each station, with but few failures. A few new varieties were also tested and found inferior to many old and well established ones.

The following, in order of maturity, will furnish the farmer with a desirable succession, both in quality and quantity:

Wood's Early Frame (ready for table in 25 days), French Breakfast (in 28 days), Chartier (in 33 days), White Strasburg (in 35 days and edible for long time), and White Vienna (a late but abundant bearer).

ROQUETTE.

The spring and fall crops of this salad, at Baton Rouge, were very fine—but few customers were found to consume them. It is a popular garden plant, and market gardeners grow it only for a limited number of patrons.

IRISH POTATOES.

At Audubon Park, duplicate experiments were made, planting pieces with two eyes, at distances of 8 and 12 inches apart in 4 foot rows. The following are the results :

VARIETIES.	Planted 12 inches.			Planted 8 inches.		
	Merchantable, Bushels per acre.	Culls, Bushels per acre.	Total, per acre.	Merchantable, Bushels per acre.	Culls, Bushels per acre.	Total, per acre.
Extra Early Vermont	118.	26.5	144.5	193.	29.5	222.5
Vermont Early Rose	273.	21.0	294.0	275.5	29.	304.5
Early Sunrise	21.	9.5	30.5	55.5	29.	84.5
Early Triumph	96.5	9.5	106.	154.	29.	183.
Snowflake	239.	9.5	248.5	234.	24.	258.
Beauty of Hebron	208.	20.	228.	232.	24.	256.
Burbank	241.5	7.25	248.75	309.	14.5	323.5
Rural Blush	159.5	5.	164.5	224.5	21.0	245.5
White Elephant	182.5	20.	202.5	198.	20.0	218.0
Rural New Yorker	135.0	9.5	144.5	154.	20.0	174.0
Boston Peerless	135.0	24.0	159.0	208.	24.0	232.
Northern Peerless	149.	24.0	173.0	203.	14.5	217.5
Michigan Peerless	96.5	20.0	116.5	145.	17.0	162.0

From above it will be seen that in every instance there has been an increase of production by planting 8 inches over those of 12 inches.

Under this head it will be appropriate to give the results of Potatoes for the past five years, which have not heretofore been published. From it can be seen the average results covering a series of years. One can thus judge of the comparative merits of the different varieties usually offered us for seed. The "Peerless" is more extensively grown than any other variety. By inspection of table given below it will be seen, that the following varieties have given average products much larger than the Peerless, viz: Vermont Early Rose, Beauty of Hebron, Rural Blush (the largest of all), White Elephant and Snowflake.

It has long been asserted that the Northern or Eastern potato was superior for seed to the Western. An effort was made to test this question by using the Peerless variety as seed gathered from different parts of the United States. The results are as follows: Boston Peerless, 69.51; Western, 60.53; Northern, 56.01, and Vermont, 39.23. Here the Western obtained from Michigan was better than the Northern (coming we were told from New York) and Vermont, and inferior only to the Boston.

The following table gives the results at Audubon Park :

YIELDS OF POTATOES AT AUDUBON PARK, FROM 1890 TO 1894.

NAME OF VARIETY.	YIELD IN BARRELS OF 160 POUNDS EACH.						
	1890	1891*	1892	1893	1894	Total	Average.
Vermont Early Rose.....	114	39.20	72.62	73.78	114.20	416.80	83.36
Early Sunrise.....	107	45.93	38.06	.....	31.70	222.69	55.67
Rural New Yorker.....	79.9	26.01	84.87	80.70	65.25	336.73	67.35
Beauty of Hebron.....	92.2	37.32	101.49	.....	96.00	327.01	81.75
Rural Blush.....	144.9	28.08	57.74	126.00	92.06	448.78	89.75
White Elephant.....	141.7	28.60	89.68	66.90	81.75	408.63	81.73
Thorburn.....	95.6	37.20	52.93	.....	.....	185.73	61.91
Boston Peerless.....	83.5	32.67	60.38	84.00	87.00	347.55	69.51
Western Peerless.....	96.4	28.08	57.30	.....	60.75	242.53	60.63
Northern Peerless.....	.....	23.81	62.55	.....	81.56	168.03	56.01
Vermont Peerless.....	.....	25.52	52.93	.....	.....	78.45	39.23
Extra Early Vermont.....	.....	40.20	46.36	.....	83.26	169.82	56.61
Early Essex.....	.....	41.10	45.93	.....	.....	87.03	43.52
Snowflake.....	.....	50.75	108.49	.....	96.75	255.99	85.33
Queen of Roses.....	.....	37.00	78.30	.....	.....	115.30	57.65
New Queen.....	.....	49.60	50.31	.....	.....	99.91	49.96
Vermont Beauty.....	.....	44.08	65.62	.....	.....	109.70	54.85
White Star.....	.....	32.48	91.87	.....	.....	124.35	62.18
Chas. Downing.....	.....	26.77	55.56	.....	.....	82.33	41.16
Dakotah Red.....	.....	32.67	60.80	.....	.....	93.47	46.73
Early Triumph.....	.....	.....	.....	.....	68.60	.....	.....
Burbank.....	.....	.....	.....	.....	121.31	.....	.....

*1891 was characterized by a prolonged drought which greatly injured the potatoes and other spring crops.

THE FOLLOWING ARE THE RESULTS FROM BATON ROUGE.

Two crops of Irish potatoes were grown as usual at Baton Rouge. The spring crop was planted March 1st, and the fall crop August 1st. Following is a record of the yields of the varieties. The Peerless is about the only variety grown for commercial purposes :

Number.	VARIETIES.	Yield per Acre in bushels.
1	American Magnum	161.3
2	Burbank (New York).....	48.4
3	Burbank (Kentucky).....	48.4
4	Burbank (Michigan).....	48.4
5	Beauty of Hebron	96.8
6	Crompton's Surprise.....	96.8
7	Charter Oak.....	80.6
8	Carpenter's Seed	217.8
9	Cheeseman's Seed	403.0
10	Clark No. 1.....	193.6
11	Cayuga.....	90.7
12	Carman No. 1.....	80.6
13	Dunsmore	69.1
14	Dictator	96.8
15	Dakota Red.....	77.0
16	Empire State.....	48.4
17	Early Dawn.....	96.8
18	Extra Early Vermont	145.2
19	Early Rose.....	172.8
20	Early Puritan.....	145.2
21	Early Thorburn (Louisiana).....	121.
22	Early Essex.....	96.8
23	Early Dustin.....	242.
24	Gold Band.....	141.1
25	Harvard	161.3
26	Hampton Beauty.....	229.9
27	Illinois Hoosier.....	121.
28	Idaho	48.4
29	James Vick	96.8
30	Little Giant.....	121.
31	Late Beauty of Hebron.....	40.3
32	Mitchell's Seedling.....	205.7
33	Mason's Seedling.....	121.
34	Magnum Bonum	136.1
35	Morning Star.....	157.3
36	Patson's Prolific.....	169.4
37	Peerless (New York).....	145.2
38	Peerless (Boston).....	96.8
39	Pride of the West.....	229.9
40	Queen of Roses	96.8
41	Queen of Sheba.....	132.5

RESULTS FROM BATON ROUGE.—CONTINUED.

Number.	VARIETIES.	Yield per Acre in pounds.
42	Rochester Favorite.....	90.7
43	Rural New Yorker No. 2.....	93.5
44	Rural Blush.....	90.7
45	Rankin Racer.....	209.0
46	Silver Skin.....	231.9
47	Thorburn.....	314.6
48	Triumph.....	103.7
49	White Beauty of Hebron.....	136.1
50	White Elephant.....	169.4
51	Yellow Elephant.....	66.5

SWEET POTATOES.

Bulletin No. 30; from this Station, published last year, gave cuts and yields of the varieties of potatoes under cultivation at Baton Rouge. The varieties there given are still grown and seed from each are furnished in small quantities to any farmer applying for them. The usual method of bedding, planting and cultivation has been continued. The yields are not as large as last year. At Calhoun, on account of the prolonged drought, the results were far from satisfactory. At Audubon Park, the Vineless sent for trial by R. Frotscher, grew well but the potatoes were so badly infected with fungus that they were isolated from the rest and disposed of at once. The Barbadoes, Georgia, Hayman and Sugar Yams, were very successfully grown and kept through the winter.

The following are the results at Baton Rouge and Calhoun :

YIELD OF SWEET POTATOES PER ACRE IN BUSHELS OF 60 POUNDS.

NAME OF VARIETY.	BATON ROUGE.			CALHOUN.	REMARKS ON CALHOUN.
	Merchantable, bushels.	Culls.	Total.	Total.	
Bermuda.....	254.1	1.6	255.7	Quality good—size small.
Big Stem Jersey.....	4 6.6	46.2	4 7.8	182	
Black Spanish.....	197.1	41.4	238.5	.....
Barba toes.....	244.8	24.8	269.6	.....
Canal.....	676.5	16.5	6 2.0	.....
Dog River.....	203.2	29.6	232.8	302.5	Very ordinary.
Delaware.....	265.5	29.6	295.1	102.5	Good
Early Golden.....	402.5	16.6	419.1	306.0	Very large and fine.
Extra Early Carolina.....	207.5	1.0	208.5	One of earliest and best.
Georgia.....	373.5	4.1	377.6	.....
Gold Skin.....	171.1	32.8	203.9	.....
Hayman.....	485.1	16.6	431.7	363	
Matejito.....	394.2	2.4	396.6	440	
Norton.....	581.0	16.6	597.6	195	Very large and fine quality.
Peabody.....	564.3	10.3	5 4.6	189	Injured by Salamanders.
Pumpkin.....	439.9	6.2	446.1	106	Injured by Salamanders.
Pool's Yam.....	332	4.1	336.1	Quality good—yield poor.
Providence.....	601.8	8.2	6 0.0	253	Fine—quality good.
Padisha.....	363.1	8.2	371.3	242	
Red Nansmond.....	547.6	16.4	564.0	440	
Red Brazillian.....	397.5	20.2	418.2	.....
Spanish Yam.....	385.9	18.6	404.5	226.5	
Sugar.....	310.6	16.6	327.2	Quality good.
Southern Queen.....	645.3	28.0	673.3	.....
Southern or Yellow Yam.....	420.8	10.3	431.1	.....

YIELD OF SWEET POTATOES—CONTINUED.

NAME OF VARIETY.	BATON ROUGE.			CALHOUN.	REMARKS ON CALHOUN.
	Merchantable, bushels.	Culls.	Total.	Total	
Strasburg.....	309.1	6.2	315.3	144	Injured by Salamanders.
Shanghai or California.....	510.4	10.3	520.7	370	Very large and fine.
Southern Red Yam.....	315.2	4.1	319.3	272	Quality good.
Tennessee.....	257.3	14.4	271.7	.....
Ticotea.....	415.0	12.4	427.4	138	Quality good—yield light.
Vineless.....	190.7	22.8	213.5	.....
Yellow Nansemond.....	342.0	8.8	340.8	.....
Yellow Red.....	101.1	10.3	111.4	.....
Yellow Yam.....	443.6	30.0	473.6	.....
Java No. 1.....	249.0	10.0	259.0	.....
Java No. 2.....	186.7	10.0	196.7	.....
Java No. 3.....	244.8	4.1	248.9	.....
Java No. 4.....	342.3	2.4	344.7	.....
Java No. 5.....	456.5	1.8	458.3	.....

The Hayman, Providence and Southern Queen are recommended for both quality and quantity.

The old standard varieties, Sugar and Georgia Yams are unexcelled for quality, but have not produced as large yields as others. The Vineless is of excellent quality, but yields have been light.

SALSIFY.

The "Mammoth Sandwich Island" was the only variety grown at each station. It produced medium sized roots, more or less branched. This plant too is sparingly grown in this State.

SPINACH.

Three varieties were grown at Baton Rouge: "The Curled leaved Savoy," "Victoria" and "Long Standing." The last proving decidedly the best, both in earliness and in production of fine large thick leaves. At Calhoun, four varieties were tested: "Large Round Viroflay," "Long Standing," "Round Flanders" and "Lettuce leaved," none of which proved satisfactory.

SCARZONERA.

One variety was grown at Calhoun, with satisfactory results. It so closely resembles Salsify that it is called "Black Salsify."

SQUASH.

Numerous varieties were tried at each station. At Audubon Park the following were preferred in the order named: Early Bush, Golden Custard, Summer Crookneck and Perfect Gem. The larger varieties were lacking in quality and frequently poor bearers. The above, planted in five foot rows and two feet apart, bore abundantly.

At Baton Rouge only the Early Bush was found profitable, it being preferred to all others.

At Calhoun, the Summer Crookneck, White Scallop, Japan Red Turban, Early Mammoth, White Bush, Perfect Gem and Egg Plant Bush were eminently satisfactory, both in quality and productiveness.

TURNIPS.

Numerous crops, covering many varieties, were grown at all the Stations. Most of them were successful, some were failures.

At Baton Rouge, the Early White Flat Dutch and Improved Purple Top Rutabaga were preferred by the public.

At Calhoun, White Model, Black Stone, Long White Tankard and White and Laing's Rutabagas gave most satisfactory results.

TOMATOES.

Only a few of the popular varieties were grown at Audubon Park, while a large number were experimented with at Baton Rouge and Calhoun. The results are given below.

The Stone, Perfection, Beauty, Advance and Dwarf Champion, furnish all of the requirements of a tomato and are recommended for the entire State. Rot and insects interfered somewhat at both Audubon Park and Calhoun, but were absent at Baton Rouge on account of timely use of fungicides and insecticides. At Baton Rouge, both spring and fall crops bore heavily.

The following gives results:

TOMATOES.

Number.	VARIETIES.	BATON ROUGE		CALHOUN.	
		When Ripe	Yield scale of 10	Yield scale of 10	REMARKS.
1	Acme.....	June 11	9	—	
2	Advance.....	" 3	10	8	Very poor appearance.
3	Atlantic Prize.....	" 19	3	4	Quality good.
4	Beauty.....	" 3	7	—	
5	Buckeye State.....	" 25	7	—	
6	Chemin Market.....	" 13	8	7	Handsome and good.
7	Cardinal.....	" 3	8	8	Early and good quality.
8	Dwarf Champion.....	" 11	7	7	Best of Dwarf variety.
9	Essex Early Hybrid.....	" 11	3	—	
10	Favorite.....	" 28	5	—	
11	Ground Cherry.....	" 3	2	—	
12	Golden Queen.....	" 11	2	—	
13	Hathaway's X. L. C. R.....	" 13	3	—	
14	Ignotum.....	" 11	4	8	Prolific and good quality.
15	Long Keeper.....	" 3	9	9	Early and productive.
16	Lemon Blush.....	" 13	6	9	Early and handsome.
17	Lorillard.....	" 25	2	3	Resembles Atlantic Prize.
18	Mansfield Tree.....	" 30	3	—	
19	Matchless.....	" 19	2	—	
20	New Peach.....	" 19	1	10	Early, prolific and good.
21	Optimus.....	" 13	4	—	
22	Ponderoso.....	" 3	5	4	Inclined to rot.
23	Potato Leaf.....	" 3	4	—	
24	Perfection.....	" 11	5	—	
25	Paragon.....	" 13	7	9	One of the best.
26	Picture Rock.....	" 19	5	—	
27	Royal Red.....	" 22	7	7	Prolific and good.
28	Red Cherry.....	" 3	5	9	Used in pickles.
29	Red Currant.....	" 13	1	9	Early, good and prolific.
30	Red Pear Shaped.....	" 19	2	9	Grows in clusters.
31	Stone.....	" 22	5	9	Prolific and good.
32	Stone (La. Bureau of Agr.).....	" 2	5	—	
33	Trophy.....	" 19	5	9	Very early and good.
34	Table Queen.....	" 8	3	—	
35	Turner's Hybrid or Mikado.....	" 13	3	—	
36	Volunteer.....	" 8	6	5	Injured by potato beetle.
37	Yellow Pear Shaped.....	" 13	1	9	
38	Yellow Plum.....	" 3	3	8	Differs from No. 37 in color.
39	Terra Cotta.....			9	Color of Terra Cotta.
40	White Apple.....			9	Prolific and good.
41	Horsford Prelude.....			10	Highly satisfactory.
42	Hovey.....			9	Resembles Acme.
43	Conqueror.....			9	Similar to Trophy.

THE AIR TUBER.

(NEW ORLEANS AIR TUBER—THE AIR POTATO.)

Dioscorea guatamala?

Two years ago the attention of the Station was drawn to a curious vine growing in the yard of Mr. Fred. Heroman—Baton Rouge. It was a small vine, and not a very vigorous grower, bearing tubers in the axils of the leaves, some of which were quite large. It could also be seen in other yards in the city, growing as a curiosity. Specimens were obtained and planted; efforts were made to find out its true name. It belonged to the genus *Dioscorea*, but could not determine the species. Although they bore many tubers, no blooms could be found on those at Baton Rouge; however, at Audubon Park they blossomed just as the first frost appeared. A communication from Mr. Richard Frotscher, Seedsman, New Orleans, furnishes the information that it was known to him as *Dioscorea Guatamala*, supposing that it had originally come from Guatamala.

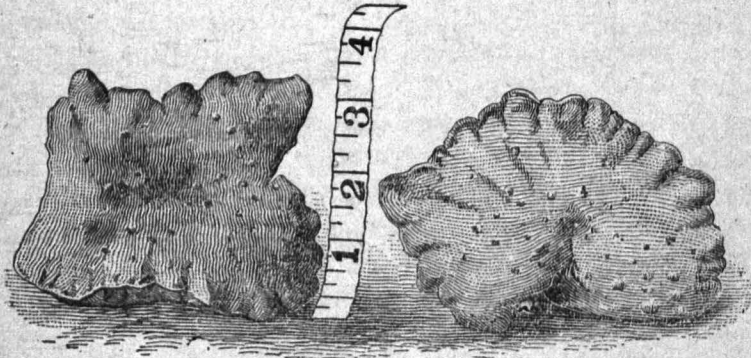
In the February number of Meehan's Monthly, occurs an engraving of one of the tubers, with the statement that it was impossible to say with certainty which species it was, and a recent letter from Mr. Thomas Meehan confirms this, hence the interrogation point after the species in the heading.

An analysis of the tubers made by the Assistant Chemist of the Experiment Station, Mr. R. E. Bouin, gave the following result :

Water.....	74.32
Protein	1.82
Fat	0.55
Fiber	1.38
Ash	1.23
Carbohydrates	20.70
(Starch	18.32)

In carbohydrates it compares favorably with beans, sweet potatoes, peanuts, and Irish potatoes, and as it bears quite heavily some seasons the question came up as to its usefulness. Accordingly some of the tubers were prepared and cooked in two ways—(1) boiled and meshed, and (2) baked. In the raw

state being quite mucilaginous, we doubted whether or not they would become dry enough for eating purposes. The flesh when cooked is rather dark and yellow, not attractive, and cooks dry but not mealy. The flavor is peculiar, not disagreeable, but one that we think could be easily cultivated. Will look further into this feature of its culture, and find out its uses. At present, no reason can be given why it should not serve some purpose as a food for stock, as well as a garden vegetable.



THE "AIR TUBER"—*d'ascorea Gautamala*(?).

WATERMELONS.

At Audubon Park 12, at Baton Rouge 31, and at Calhoun 26 varieties were grown. The soil of Calhoun is particularly adapted to the growth of large and sweet melons. However, good crops were obtained at all of the Stations. The following are the results :

VARIETIES.	Audubon Park.			Baton Rouge.			Calhoun.		
	When ripe.	Quality.	Quantity.	When ripe.	Quality.	Average wt. pounds.	When ripe.	Quality.	Weight of Largest, lbs
Boss.....		Fair	Unproductive	July 19	Fair	15.6	July 12	Fair	21½
Black Spanish.....				" 6	Sweet	15.0	" 12	Very good	18½
Cuban Queen.....				" 24	Fair	21.5	" 20	Sweet	29
Dixie.....				" 24	Good	21.1			
Fordhook Early*.....				" 21		8.1	July 12	Fair	21
Florida Favorite.....		Fine	Good	" 2	Excellent	14.1	" 10	Excellent	16
Goldman's Imperial.....				" 25	Sweet	10.0	" 17	Sweet	11½
Girardeau New Favorite†.....				" 10		10.5	" 12	Poor	15
Green and Gold.....				" 5	Sweet	11.0	" 12	Fine	27
Hungarian Honey.....				" 5	"	9.2	" 15	Very good	16
Ice Cream.....		Good		" 13	Good	11.4			
Iceing.....				" 10	Sweet	11.3			
Jordan's Gray Monarch.....				" 7	Fair	17.5			
Johnson's Christmas§.....				" 27	Sweet	17.2	July 30	Poor	15
Kolb's Gem.....			Fair	" 24	Coarse	17.2	" 18	Good	36½
Kentucky Wonder.....		Good	Good	" 13	Good	15.0	"	Fine	
Last Resort.....				June 20	Sweet	9.8			
Lone Star.....		Fair.		July 5	Excellent	22.7			
Mammoth Ironclad.....		"		" 10		22.7			
Phinney's Early.....				June 20	Fine	11.1			
Pride of Georgia.....		Good	Poor	July 5	Good	13.4	July 17	Fine	30
Ruby Gold.....				" 5	"	13.7	" 17	Good	18
Rocky Ford.....			Fair	June 20	Undesirable	14.1	" 12		

*Three kinds grew from this seed at Calhoun. †Similar to "Florida Favorite" at Calhoun. §Similar to "Jones,"

WATERMELONS—CONTINUED.

VARIETIES.	Audubon Park.			Baton Rouge.			Calhoun.		
	When ripe.	Quality.	Quantity.	When ripe.	Quantity.	Average wt. pounds.	When ripe.	Quality.	Weight of largest, lbs.
Seminole.....		Fair		July 2	Good	13.1	July 10	Good	15
Scaly Bark				" 2		15.6			
Sibley's Triumph				" 25	Sweet	13.8	July 11	Sweet	16
Southern Rattlesnake.....		Sweet	Good	" 21	"	17.1	" 18	Fair	21
Varicose				" 27		11.0	" 17	Sweet	14
Volga.....				" 27	Sweet	8.4	" 12	Good	17
"Jones".....		Excellent	1 mel. 52 lbs.				" 17	Excellent	35
Sugar Loaf (Augusta).....							" 12	Poor	20½
Kansas Stock.....							" 18	Good	30
True Jackson							" 14	Sweet	17
Mountain Sweet							" 8	Fair	23
Chester Cream							" 22	Good	20¾
New South Queen.....		Fair							

For family use, "The Florida Favorite," "Lone Star" and "Jones" are perhaps the best. For shipping, "Kolb Gem," "Pride of Georgia," "Dixie" and "Scaly Bark" are to be preferred.

FRUITS.

Last season was unfavorable for orchard fruits, the late spring frosts destroying the blooms. Hence there is but little to report.

The following additions have been made to the Calhoun orchard, viz.: 34 varieties of apples, 30 varieties of peaches, 8 varieties of pears, 3 of cherries, 4 of grapes, 4 of apricots, 10 of plums, 15 of raspberries and 16 of strawberries.

The following apples bore a few fruit: Astrachan, June 15th; Ben Davis, late; Early Harvest, June 15th; Kettageskie, (fruit rotted before maturity); Lanier, Romanite, fruit rotted; Simon's Red, Tuscaloosa, good; Wine Sap, good. At Baton Rouge, the Shockley, Taunton, and Maverac Sweet, gave good specimens. The Transcendant gave one crop in July and another in December, the latter, however, was caught by the freeze. The Black Twig gave some fine apples and is fairly promising.

At Calhoun, the apple trees are suffering severely with the blight and the persistent use of the knife is required. Many trees have been lost. At Baton Rouge, the trees are in a healthy condition, only two have been lost by borers.

PEARS.

At Baton Rouge, the following bore fruit: Madame Von Seibold, a round russet pear very hard but ripened into good quality August 15th; Philadelphia, a medium coarse pear, September 15th, and Le Conte.

The blight appeared during the year in this orchard, but by heroic treatment was eliminated. At Calhoun, blight is very destructive. There is no sign of blight at Audubon Park.

PEACHES.

No good peaches are reported from either Station. The trees at Calhoun were injured by the late cold spell of March and have

never recovered. At Baton Rouge the trees have not prospered. It is thought that the injury is due to sunscald on southeast side of tree, and experiments will be made the coming season to test this question. The borers are the worst enemies to the peach and eternal vigilance is required to keep them free from them.

GRAPES.

At Baton Rouge, the vineyard bore about two thirds of a crop. The Niagara failed entirely last year and many others give signs of approaching dissolution. The frequent use of the sprayer with fungicides, seems absolutely necessary for a good crop of grapes at this Station. The Champion Diamond, Sweet Mountain, Dracutt Amber, Concord and Herbemont are varieties recommended. At Calhoun, fair crops were obtained from many varieties, but it has been found necessary to use the sprayer there too.

QUINCE.

At Calhoun, the Portugal variety gave a fine crop of fruit.

RASPBERRIES

Are not vigorous at Baton Rouge, though the Cuthbert, Golden Queen and Progress gave small pickings.

At Calhoun, some are reported in a vigorous healthy condition, but suffered from drought of last season. The Caroline bore a good crop of fruit.

FIGS AT BATON ROUGE.

A large number of the figs in the orchard are slowly becoming established and better crops can be expected in the future. The Celeste still leads in popular favor, followed by the Reine Blanche and Honche de Bray. These latter are small cream white figs, very attractive in appearance and of fair quality; however, not to be compared with the edible qualities of the Celeste. The Mission is the most popular of the very dark varieties, and was very favorably commented upon by a majority of visitors to the Station. Of the larger varieties, the Smyrna seems to still be the first choice. It is of coarse texture and more suitable for canning purposes.

JAPAN PERSIMMONS AT BATON ROUGE.

The Japanese persimmons are growing well and gave some fine fruit during the season. Eight varieties bore and a condensed description follows :

1. *Among or Yemon*.—This was obtained from the nurseries marked Hachiya, but as it answers so fully the published descriptions, it is best to call it the Among. It is small (3 inches in diameter) tomato shape, few seeds, often none. October 3.

2. *Hachiya*.—Medium size oblong, pointed, has seed and is very astringent until fully ripened, came to us as Yemon. September 25.

3. *Hyakume*.—This is probably our largest and handsomest persimmon, very large, almost round, often seedless, very mild and not astringent. October 10.

4. *Kuro Kume*.—This variety is flat and depressed at the pistil end, fleshy, few seeds, moderately astringent. September 14.

5. *Kora Kami*.—Similar to the above, highly colored. September 14.

6. *Taucuasih*.—Similar to, but not so pointed as the Hachiya. Is highly colored, seeded, fine flavor, dark red flesh, sweet. September 14.

7. *Yedoichi*.—A rather large egg shaped fruit, oblong, but not pointed, seeded, and not astringent. October 20.

8. *Zingi Maru*.—Oblong, large, slightly depressed at the sides, some highly colored when ripe, agreeable, fair quality. September 14.

Some trouble was experienced in keeping the mocking birds and fig-eaters away from the fruits. As soon as they commenced to turn, the mocking birds would peck holes in them and the fig-eaters and other insects would ruin them. Paper sacks were used with considerable success so far as the insects were concerned, but the birds easily tore them open, and thus ruined a large quantity of the fruit. Unless very tough sacks are used the birds will not be hindered from injuring the fruit. At Audubon Park, two varieties bore a few fruit. At Calhoun the trees bore no fruit.

Shuster's Gem.—Plants moderately strong and vigorous. Slight disease, gave a light crop of good fruit.

Stayman's No. 1.—Growth moderately strong and vigorous, but somewhat diseased. No fruit. 10 set, 10 growing October 15th.

Warfield.—Growth rather weak, healthy. Bore profusely. 20 set, 15 growing October 15th.

Warfield No. 1.—Plants weak and not vigorous, but fairly healthy. Bore a moderate crop. 8 set, 6 growing October 15th.

Warfield No. 2.—Plants strong, vigorous and comparatively healthy. 12 set, 9 growing.

West Lawn.—Plants vigorous, strong and perfectly healthy. Bore some good fruit. 21 set, 21 growing October 15th.

Yale.—Plants strong, vigorous and healthy and bore some good fruit. 10 set, 8 growing October 15.

Beverly.—Plants badly diseased and nearly all dead; does not appear to be vigorous on our soil.

Crawford.—Plants small, weak and badly diseased.

Cumberland.—Growth weak and shows much disease.

Eclipse.—Plants fairly vigorous and healthy.

Greenville.—Plants moderately vigorous and healthy.

Dayton.—Plants small, weak and diseased. Nearly all dead.

Parry.—Plants moderately vigorous and healthy.

Parker Earle.—Plants strong, healthy and vigorous. Bore profusely, but fruit of poor quality.

Shuckless.—Growth poor and badly diseased. Nearly all dead.

Princess.—Plants moderately vigorous and healthy. Some fruit of poor quality.

Jersey Queen.—Plants fairly vigorous and healthy.

Timbrell.—Plants small, weak and badly diseased. Nearly all died out.

Van Deman.—Growth vigorous and comparatively healthy. Some fruit of poor quality.

Smeltzer Early.—Plants strong, healthy and vigorous. Some disease.

STAWBERRIES AT BATON ROUGE.

About one third of a crop was realized from the varieties of strawberries. Their growth and productiveness is in direct line with their record last year, and the same varieties are suggested again this year. The Hatfield and Gypsy are the failures this year. The Rio, Michel's Early and Stevens (all perfect flowering) are still preferred for early berries ; to be followed by the Cloud, Crescent (imperfect) and the Hoffman, John Little, Louise and Pioneer (perfect flowering). Seven new varieties were grown this year, having been presented by the nursery of Frank Ford & Son, Ravenna, Ohio.

Dayton (perfect).—Ripens with the Cloud, good color, medium size and firm texture.

Eclipse.—Bore only a few berries, not fully established yet.

Greenville (imperfect).—This is really one of the finest berries we have tried in years, good size and shape, firm and has a splendid flavor, color good and season with the Cloud.

Miner (perfect).—A productive variety of good quality.

Muskingum (perfect).—A late variety, large, dark color, luscious.

Vandeman—Quite early, good shape and size, but not a heavy bearer so far.

Wolverton (perfect).—This variety bears a slightly pointed, large berry, quality fair ; not very productive.

BLACKBERRIES.

Nothing new has developed this year in our varieties of Blackberries. The Brunton is our heaviest bearer, and the Kit-tatiny gave the best berries. The bushes are doing well.

DEWBERRIES.

Of the four varieties growing at the Station the Braden, Coleman, Lucretia and Manatee, the Lucretia is almost a failure ; there still remains plants of this variety, but they are very unhealthy. The Braden and Coleman are white and as a novelty do very well. The Manatee is our most prolific variety, and bears very fine, large berries.

GOUML.

This little fruit is very pretty and furnishes material for an excellent jelly. From the middle of May until the last of June it bears large quantities of small cherry-like fruit. It is not only a useful plant, but is highly ornamental as well. It is a close growing bush, covered thickly with small, handsome leaves, under which appears the little fruits colored from green through the shades of yellow and red to dark red.

JAPAN WINEBERRY

Is growing finely at Audubon Park and bore last year a crop of berries which were very attractive to the mocking birds. At Baton Rouge it is not doing well. At Calhoun the growth is satisfactory but it has borne no fruit.

ORANGES.

At Baton Rouge, the Satsuma, Kewachi and Dai Dai bore fruit. The Satsuma and Kewachi were found to be identical, and the Dai Dai, which bore a large crop of attractive fruit, was a sour variety. The young orchard planted last spring and which made a fine growth during the summer was completely destroyed by the cold of this winter (1894 and 1895).

At Audubon Park, the citrus grove, upon which much labor and time had been expended, responded with full crops of delicious fruits from — es. Many other varieties gave us a few specimens of each. There were in this Orchard nearly a thousand trees, planted with a view of determining, 1st, the best varieties for this State; 2d, the best method of topping, *i. e.*, whether low, medium or high topping was best for this climate or soil; the manurial requirements of the orange, and 4th, the stock best adapted to our environments.

FIRST, VARIETIES.

Over 125 varieties of oranges, Pomelos, Kumquats, Shadocks and Lemons had been collected from all parts of the world. These were represented by trees varying in age from four years old to nursery stock. The greater portion were three and four years old. The following are the best of varieties that bore fruit

RESULTS FROM CITRUS GROVE.

NAME OF VARIETY.	When ripe.	Size of fruit.	Age of tree.	Quality.	REMARKS.
Baldwin's No. 1.....	Nov. 1	Medium	3 yrs. old	Full	Borne two years, small tree, prolific.
Baldwin's No. 2.....	" 15	"	2 "	Few	A straggled tree.
Baldwin's Blood.....	" 1	"	3 "	Full	A straggled tree, borne two years.
Blood Among.....	Dec. 1	Large	3 "	Two	Fine tree.
Blood Don's Late.....	" 29	Med. smooth	3 "	Full	Compact low tree.
Blood Maltese.....	" 1	Small	3 "	Two	Tree of medium growth and vigor.
Blood Saul's.....	" 29	"	3 "	"	Tree of medium growth and vigor.
Beach's No. 4.....	" 29	Medium	3 "	Fair	Tree of medium growth and vigor.
Beach's No. 5.....	" 29	"	3 "	"	Tree of medium growth and vigor.
Brazilian.....	Nov. 1	"	4 "	Very full	Tree of good growth.
Centennial.....	Dec. 1	"	2 "	Two	Fine growth.
Circassian.....	" 1	"	3 "	"	Fine growth.
Du'cessiana.....	" 1	Large	3 "	"	Fine growth and excellent fruit.
Du Roi.....	" 15	Small, ribbed	3 "	"	Medium growth unattractive.
Early Oblong.....	Oct. 15	" oblong	3 "	Full	Fine growth, first edible when green.
Hybrid Orange and Pomelo.....	Dec. 1	Large	3 "	"	Straggling growth, borne two years.
Homosassa.....	Nov. 1	Small	3 "	Very full	Pyramidal, vigorous growth, desirable.
Madania Vinous.....	Dec. 29	Medium	3 "	Fair	Fine growth.
Maltese Oval.....	" 29	Large oblong	3 "	Full	Fair growth.
Maltese Oval (Wash).....	" 29	"	3 "	"	Fair growth.
Malta, Pride of.....	" 29	Medium	3 "	"	Fair growth.
Mediterranean Sweet.....	" 15	Small	3 "	Very full	Low spreading growth, fine fruit, seedless.
Magnum Bonum.....	" 15	Large	3 "	Full	Enormous growth, attractive fruit.
Majorca.....	" 15	Medium	3 "	"	Fine growth.
Navel Bahia.....	" 15	"	3 "	Few	Fine growth, shy bearer, excellent fruit.
Navel Mili'ensis.....	" 29	Large	3 "	"	Fine growth, shy bearer, fine fruit.
Navel Sandford's.....	" 20	Med to large	3 "	Very full	Fine growth, enormous bearer, excellent fruit.
Nonpareil.....	" 1	Large	3 "	Full	Fine growth, large fine fruit.
Pineapple.....	" 1	Medium	3 "	"	Fine growth, good fruit.
Portugal.....	" 15	Large	3 "	"	Fine growth, large fine fruit.
Prata.....	" 29	Small	2 "	Few	Fine growth, small unattractive fruit.
Queen.....	" 1	Large	3 "	Full	Straggling habit, fine large fruit.

RESULTS FROM CITRUS GROVE.—CONTINUED.

NAME OF VARIETY.	When ripe.	Size of fruit.	Age of tree.	Quality.	REMARKS.
Quinette's Sweet.....	Oct. 15	Medium	4 yrs. old	Fair	Fine growth, fruit edible in September.
Selecta.....	Dec. 20	Large	3 "	Full	Fine growth, large attractive fruit.
Star Caly.....	" 20	Medium	3 "	Full	Fine growth, fruit medium in quality.
St. Michael's Egg.....	" 15	Small, oblong	3 "	Full	Fine growth, small fruit, attractive only by shape.
St. Michael's Paper Kind.....	" 20	Medium	3 "	Full	Fine growth, medium fruit in size and quality.
St. Michael's Wash.....	" 20	"	3 "	Full	Fine growth, medium fruit in size and quality.
St. Michael's Sanford's.....	" 25	"	3 "	Two	Fine growth, medium fruit in size and quality.
Tardiff Hart's.....	" 29	Large	3 "	Very full	Fine growth, fruit large, late and attractive.
Satsuma.....	Oct. 15	Medium	2 "	"	*Real Satsuma, sweet and attractive.
Tangerine.....	Dec. 1	Small	2 & 3 "	"	Fine growth, desirable.
Tangerine Corogill's.....	" 1	"	3 "	"	Fine growth, desirable.
Tangerine Dancy.....	" 1	"	3 "	"	Fine growth, desirable.
Tangerine Hunter.....	" 1	"	3 "	"	Fine growth, desirable.
Mandarin.....	Nov. 1	"	3 "	Two	Fine growth, desirable.
Kumquat Oblong.....	" 15	Very small	3 "	Very full	Fine growth, very attractive.
Kumquat Round.....	" 15	"	2 "	Two	Medium growth, not so attractive.
Lemou—Belair Premium.....	" 29	Large	1 "	Two or three	Fine growth.
Lemou—Villa Franca.....	" 29	Medium	2 "	"	Fine growth.
Seedling Creole.....	.....	Large	10 "	Few	Fine growth, fruit good.

* There are two distinct Satsumas in our grove—obtained from different sources. One puffy, large, late and undesirable, perhaps the Kewach; the other medium size, solid, sweet and very desirable.

REMARKS ON ABOVE.

There were originally planted two trees of each variety. A few have been lost entirely. Several others have lost one tree, but most of them had still the two trees living. There were six Tangerine trees of three varieties (two trees each of Cowgell, Dancy and Hunter) that were very full. Samples were taken at times for trial and every visitor was permitted to take one or two fruit of each variety. In December the fruits on the trees were sold at one cent apiece. They were gathered and counted with the following results :

Cowgell's No. 1.....	283
Cowgell's No. 2.....	158
Dancy's No. 1.....	310
Dancy's No. 2.....	310
Hunter's No. 1....	357
Hunter's No. 2.....	125
Total.....	1543

or the sum of \$15.43 for the fruit from six trees just three years planted in the orchards and four years from the bud.

As remarked elsewhere in foot note, there are two different varieties of *Satsumas* in our orchard. One obtained from a local dealer, that gives a large puffy, unsavory fruit; the other, procured from a nursery in Florida, which produced medium sized, solid, sweet and desirable fruit, ripening very early and very saleable. The latter is an acquisition to any orchard, the former very undesirable. It is perhaps from the occurrence of these distinct varieties that such diverse views are entertained relative to the merits of this variety. The Kumquat, particularly the oblong, is a very palatable as well as an ornamental fruit, and was the attraction of nearly every visitor to the grove.

The Mandarin trees bore a heavy crop of fruit the second year, and hence the small crop of this year, this variety having the reputation of bearing full crops in alternate years.

SECOND. BEST HEIGHT TO TOP.

Three rows, with nine trees (three of Parson Brown, Jaffa and Washington) in each row were used for this experiment. They were budded on sour stock. Row No. 1 was kept clean of

sprouts to a distance of three feet. Row No. 2 to two feet, and Row No. 3 to one foot. The proportionate amount of head was preserved in each. The plat was doing well and promising a reply to our efforts when killed completely by the cold.

THIRD. MANURIAL REQUIREMENTS OF THE ORANGE.

Six rows of nine trees each (varieties same as above) had been for two years dedicated to the testing of this question.

Row No. 1 received only Nitrogen.

Row No. 2 received only Phosphoric acid.

Row No. 3 received only Potash.

Row No. 4 received no manure.

Row No. 5 received Nitrogen and Phosphoric acid.

Row No. 6 received Nitrogen, Phosphoric and Potash.

This plat, too, was doing well when killed by the cold.

FOURTH. THE BEST STOCK.

Two years ago, the following varieties, two trees of each, were budded on six different kinds of stock, making 72 trees in all. These were planted so as to have each variety on a single row and so changed in relative positions on different rows as to place each kind of stock upon every kind of soil that might occur in the plat. The stock used was sour, bitter sweet and sweet orange, rough lemon, grape fruit and citrus trifoliata. The varieties used were Boone's Early, Du Roi, Homosassa, Jaffa, Parson Brown and Washington Navel.

These had made a vigorous growth and were doing excellently well, when the cold of December 27th, 1894, (thermometer 19° F.) completely defoliated them. In February, 1895, a severe snow fall of 11 inches, lying on the ground for several days, with a fall in the thermometer to 15° F. completely eliminated them all without regard to varieties or stock.

At the same time the entire orchard and nursery stock was destroyed, save the following: 2 Satsumas budded on trifoliata two years old (which were very slightly injured) and the trifoliata nursery. In this nursery we were propagating Satsumas, Mandarins, Tangerines and Kumquats upon Trifoliata. The Mandarins

were all killed. One Tangerine survived, all of the Satsumas and Kumquats came through unhurt. These were buds varying in age from 8 to 3 months.

Our entire grove has by this unprecedented cold been eliminated, save those given above, which have been transplanted in the orchard.

There were nurseries of budded trees on sour and bitter sweet stock and several rows of sour stock ready to bud this spring, all of which were completely killed.

Thus, seedlings and budded stock of every variety of the "citrus dulcis" and Mandarins and seedlings and budded stock of every variety of Satsuma, Tangerine and Kumquats, save Trifoliata were destroyed.

Only Satsumas and Kumquats and one single bud of Tangerine upon citrus trifoliata are left as a remnant of one of the prettiest and healthiest groves in the State.

It may be assumed as almost certain that Satsumas and Kumquats upon trifoliata stock will stand any cold that is likely to ever occur in the latitude of New Orleans and can be planted with assurances of immunity from this our most fatal enemy to orange culture.

It suggests also the possibility of their growth in the middle portions of this State, subject of course to periodic destruction by unusual cold similar to that which has visited this State during the past winter. This experience teaches conclusively the superior power of resistance to cold possessed by the citrus trifoliata as a stock for budding all kinds of oranges on. This stock is dwarfish in habits and trees budded on it require only 10 to 12 feet distances apart.

Whether any of the trees killed will sprout during the summer, is yet to be seen. With four exceptions, our entire grove consisted of budded trees, hence the sprouting will only restore stock, but not the varieties. The latter must be again collected from all parts of the world. Extensive planting of seed for stock has been made and this fall and next spring the work of reconstructing the grove will begin.

ADDITIONS TO THE ORCHARD AT BATON ROUGE.

The Station at Baton Rouge returns thanks for the following donations :

The Protector Company, Collinsville, Conn., for one protection.

Dr. J. C. Roberts, Centreville, Miss., for 1 dozen tea plants ; 4 DeCaradean plum trees ; 1 package of twigs of each of the following varieties of apples for grafting : Smith, Bellflower, Golden Russet.

Mr. Oliver A. Smith, Clarkston, Mich., for one "Boss" sprayer.

Mr. A. F. Rice, Griswoldville, Ga., for one "Superb" grape vine.

F. W. Heroman, Baton Rouge, for seed.

All three Stations are indebted to the following :

Graham & Boswell, New Orleans, La., for "Pride of the South" Irish potatoes.

W. Atlee, Burpee & Co., Philadelphia, Pa. ; J. M. Thorburn & Co., New York, N. Y. ; Richard Frotscher, New Orleans, La. ; Northrup, Goodwin & Brasler, Minneapolis, Minn. ; J. C. Vaughan, Chicago, Ill. ; Louisiana State Bureau of Agriculture, Baton Rouge, La., for seeds.

